Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yankee Slough	Right	4.12	10/22/2014 10/22/2014	Matthew Hoffman

		D // +4					
LM Start		Rating **	Α	Issue No.		1	
LM End		Issue Type +	Ma	Location *		N/A	
Category Earthen Levee			GPS La	atitud	le/Longitude		
Calegory				Start		End	
ltam	Emergen	cy Supplies &		0		0	
Item	Equipmer	nt			0		0
DWR ID	DWR_RD1	001_01_s _ 201	12_1	'			
	Action/Comments						
Inspector	Comments	: LMA has flo	od fiaht :	supplies on	han	d at their	

district office.

No Photos

Rating ** Issue No. LM Start Α 2 Location * N/A Issue Type + Ma LM End Earthen Levee GPS Latitude/Longitude Category Start End Flood Preparedness & Training Item DWR ID DWR RD1001 01 s 2012 2 Action/Comments

No Photos

Inspector Comments: LMA participates in the Flood Fight class put on by RD784 and DWR annually.

LM Start		Rating **	Α	Issue No.	Issue No.		
LM End		Issue Type +	Ma	Location *		N/A	
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory	legory				Start		
Item		s & Maintena	nce		0		0
item	Manuals				٥		0
DWR ID	DWR_RD1	001_01_s _ 201	12_3				
	Action/Comments						

No Photos

Inspector Comments: LMA has a copy of the O&M manuals at the district office.

N : Not Inspected/Rated C : Corrected A/W: Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yankee Slough	Right	4.12	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	0.92	Rating **	С	Issue No.		10
LM End	2.43	Issue Type +	Ma	Location *		CR
Category	Earthen Levee				atitud	e/Longitude
Calegory				Start		End
Item	Vegetatio	n		38.9747	58°	38.968557 °
пеш				-121.4843	00°	-121.509360 °
DWR ID	DWR_RD1	001_01_s _ 201	13_10			
		Action/	Comme	nts		
Keep the c	rown road	way free of ve	egetation			

No Photos

N : Not Inspected/Rated C : Corrected A/W: Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Page 2 of 2

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yankee Slough	Left	3.65	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	0.31	Rating **	М	Issue No.		4	
LM End	0.31	Issue Type +	Ма	Location *	WS		
Category	Earthen L	evee	GPS Latitude/Longitude				
Calegory				Start		End	
Item	Animal Co	ontrol		38.9743	31 °	38.974331	0
item			-121.4764	81 °	-121.476481	0	
DWR ID	DWR ID DWR_RD1001_02_f _ 2014_4						

Action/Comments

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comments: Animal hole on waterward levee slope near the crown. Hole is approximately 1'dia and 8" deep.



This photo was taken from the levee crown facing east looking down the waterward slope at an animal burrow. Fall 2014.

LM Start	0.31	Rating **	М	Issue No.	4 (cont)
LM End	0.31	Issue Type +	Ма	Location *	WS

Photo 2 of 2: FA_2014_RD1001_35_4_20141103_00011.jpg



Another picture of the animal burrow. Fall 2014.

LM Start	1.29	Rating **	М	Issue No.		1	
LM End	1.29	Issue Type +	Ma	Location *		WS	
Category	Suppleme	ental	GPS Latitude/Longitude				
Category	gory		Start		End		
Item	USACE E	rosion Survey	/	38.9696	40 °	38.969740	0
пеш				-121.4948	29 °	-121.494327	0
DWR ID	DWR_RD1	001_02_f _ 201	4_1				
		Action/	Comme	nte			

Action/Comments

Inspector Comments: 2011 - New erosion site. Steep eroding slope. Fairly old scarp with vegetation growth. 2013: Site is part of the extended inventory, last inspected 2011. [2013 Site ID: YAS_1-7_L]

No Photos

Page 2 of 2

Flood Control Project Maintenance Levee Inspections

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yankee Slough	Left	3.65	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	3.32	Rating **	С	Issue No.		14
LM End	3.32	Issue Type +	Ма	Location *		WS
Category	Earthen Levee				atitud	e/Longitude
Category				Start		End
Item	Encroach	ments		38.9638	25 °	38.963825 °
item				-121.5276	13 °	-121.527613 °
DWR ID	DWR_RD1	001_02_f _ 201	3_14			
		Action/	Comme	nts		
Tree or lim	nb					

No Photos

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	0.02	Rating **	С	Issue No.	26		
LM End	0.08	Issue Type +	Ма	Location *	WS		
Catagony	Category Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End	
Item	Trim / Thi	n Trees		39.00660	2 °	39.006600°	
пеш				-121.37530	5 °	-121.376397 °	
DWR ID	DWR_RD1001_03_s _ 2013_26						
	Action/Comments						

Trim trees to at least five feet above ground level.

No Photos

LM Start	0.11	Rating **	М	Issue No.		2	
LM End	0.11	Issue Type +	Ma	Location *		CR	
Category	Earthen Levee			GPS Latitude/Longitude			
				Start		End	
ltom	Slope Stability			39.0065	69 °	39.006569	۰
Item				-121.3770	37 °	-121.377037	0
DWR ID	DWR_RD1	DWR_RD1001_03_f _ 2013_2					
		Action/	Comme	nte			

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Rutting caused by vehicles driving up the landward levee slope.

Photo 1 of 1: FA_2014_RD1001_37_2_20141020_00002.jpg



This photo was taken from the crown of the levee facing west looking down the slope at rutting caused by vehicles driving up the landward levee slope.

Photo 1 of 1: FA_2014_RD1001_37_18_20141103_00040.jpg

LM Start	0.31	Rating **	М	Issue No.		18	
LM End	0.31	Issue Type +	Ma	Location *		LS	
Catagony	Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End	
Itom	Encroach	ments		39.0063	36 °	39.006336	э
Item				-121.3805	24 °	-121.380524	э
DWR ID	DWR_RD1001_03_f _ 2014_18						
	Action/Comments						

Tree or limb





This photo was taken from the levee crown facing west looking down the landward slope at a fallen tree that needs to be removed. Fall 2014.

Location + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence N/A: Not Applicable LS: Land Side A : Acceptable M : Minimally Acceptable N : Not Inspected/Rated WS : Water Side C : Corrected U : Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	0.84	Rating **	М	Issue No.		13	_	
LM End	0.84	Issue Type +	Ма	Location *	WS		_	
Cotogony	Earthen L	GPS Latitude/Longitude						
Category				Start		End		
Item	Trim / Thi	Trim / Thin Trees			°	39.006429	0	
пеш				-121.390363	°	-121.390363	0	
DWR ID	DWR_RD1001_03_f _ 2013_13							
	Action/Comments							

Trim trees to at least five feet above ground level.

No Photos

Rating ** Issue No. LM Start 0.93 M 15 WS Issue Type + Ma Location * LM End 0.93 Earthen Levee GPS Latitude/Longitude Category Start End Trim / Thin Trees 39.006609° 39.006609° Item -121.392030 ° -121.392030 DWR RD1001 03 f 2013 15 DWR ID Action/Comments

Trim trees to at least five feet above ground level.

No Photos

Rating ** Issue No. LM Start 1.09 M 16 1.09 Issue Type + Ma Location * WS LM End Earthen Levee GPS Latitude/Longitude Category Start End Trim / Thin Trees 39.006095 39.006095° Item -121.394842 ° -121.394842 DWR ID DWR_RD1001_03_f _ 2013_16 Action/Comments

Trim trees to at least five feet above ground level.

No Photos

* Location

LS: Land Side N/A: Not Applicable

WS: Water Side

Not Applicable

A : Acceptable

M : Minimally Acceptable

U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type

Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	1.87	Rating **	A/W	Issue No.		29	
LM End	1.87	Issue Type +	Ма	Location * LS		LS	
Category Earthen Levee			GPS Latitude/Longitude				
Calegory			Start		End		
Item	Slope Sta	bility		38.9986	40 °	38.998640	
пеш				-121.4055	02 °	-121.405502 '	
DWR ID	DWR_RD1	DWR_RD1001_03_s _ 2013_29					

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

LM Start	1.87	Rating **	A/W	Issue No.	29 (cont)
LM End	1.87	Issue Type +	Ma	Location *	LS

Photo 1 of 2: FA_2014_RD1001_37_29_20141020_00020.jpg



Damage caused by vehicles going around the gate. Spring 2013

Photo 2 of 2: FA_2014_RD1001_37_29_20141020_00021.jpg



Damage caused by vehicles. Spring 2013

LM Start	1.87	Rating **	A/W	Issue No.		28	
LM End	1.87	Issue Type +	Ma	Location *	WS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End	
Item	Slope Sta	bility		38.9986	42 °	38.998642 °	
item				-121.4055	07°	-121.405507 °	
DWR ID	DWR_RD1	001_03_s _ 201	3_28			·	
	Action/Comments						

Repair the levee slope damaged by vehicle traffic and prevent access where possible.



Damage caused by vehicles Spring 2013

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	1.87	Rating **	A/W	Issue No. 28 (cont)		28 (cont)	
LM End	1.87	Issue Type +	Ma	Location *		WS	
Category Earthen Levee			GPS Latitude/Longitude				
Calegory		Start		End			
Item	Slope Sta	bility		38.9986	42 °	38.998642	0
пеш				-121.4055	07 °	-121.405507	0
DWR ID	DWR_RD1001_03_s _ 2013_28						
	Action/Comments						

Repair the levee slope damaged by vehicle traffic and prevent access where possible.



Damage caused by vehicles. Spring 2013

LM Start	2.29	Issue No.		30	٦		
LM End	2.29	Issue Type +	Ma	Location *	ation * LS		
Category	evee		GPS La	atitud	le/Longitude		
Calegory				Start		End	
Item	Slope Sta	bility		38.9963	02 °	38.996302	0
item	-121.412285 ° -121.41228						0
DWR ID DWR_RD1001_03_s _ 2013_30							
Action/Comments							

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Photo 1 of 1 : FA_2014_RD1001_37_30_20141020_00022.jpg
The state of the s
THE THE PARTY OF T

Damage caused by vehicles. Spring 2013

LM Start	3.54	A/W	Issue No.		906		
LM End	3.54 Issue Type + Ma		Location *	LS			
Category	evee	GPS La	atitud	e/Longitude			
Calegory	ategory					End	
Item	Vegetatio	n		38.9917	45 °	38.991745 °	
пеш	-121.434398 ° -121.4343						
DWR ID	DWR ID DWR_RD1001_03_s _ 2012_906					·	
Action/Comments							

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 3 - L/S slope -Elderberries

* Location
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating
A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence
U: Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

* Issue Type
Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	4.31	Issue No.	46				
LM End	4.31 Issue Type + Ma			Location *		CR	
Category	Earthen L	GPS Latitude/Longitude					
Calegory		Start		End			
Item	Slope Sta	bility		38.99206	3°	38.992063	0
пеш			-121.44839	90 °	-121.448390	0	
DWR ID	DWR_RD1001_03_f _ 2013_46						
Action/Comments							

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Rutting caused by vehicles driving up the waterward levee slope.

No Photos

LM Start	4.68 Rating ** A/W			Issue No.		58
LM End	4.68	Issue Type +	Ma	Location *	WS	
Category	Catagoria Earthen Levee				titud	le/Longitude
Calegory			Start		End	
Item	Vegetatio	n		38.9915	13 °	38.991513 °
пеш				-121.4552	20 °	-121.455220 °
DWR ID	WR ID DWR_RD1001_03_s _ 2012_58					
Action/Comments						

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 3 - W/S slope -Elderberries

LM Start	4.85	A/W	Issue No.		910		
LM End	4.85	Issue Type +	Ma	Location *	LS		
Category	evee	GPS Latitude/Longitude					
Calegory			Start		End		
Item	Vegetatio	n		38.99077	'3 °	38.990773 °	
пеш	-121.458203 ° -121.4582						
DWR ID	DWR ID DWR_RD1001_03_s _ 2012_910						
Action/Comments							

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 3 - L/S slope -Elderberries

* Location

LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown

** Rating

A : Acceptable N : Not Inspected/Rated M : Maintenance Deficiancy

C : Corrected Ob : Design & System Obsolescence

U : Unacceptable A/W : Acceptable but Monitor & Maintain

** Rating

A : Acceptable M : Mointenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	6.50 Rating ** M			Issue No.		38	
LM End	6.50	6.50 Issue Type + Ma			LS		
Catagoria Earthen Levee				GPS La	atitud	le/Longitude	
Category				Start		End	
Item	Erosion /	Bank Caving		38.9840	10 °	38.984010	٥
item				-121.4874	20 °	-121.487420	٥
DWR ID	ID DWR_RD1001_03_s _ 2013_38						
Action/Comments							

Schedule repair of erosion site prior to the next inspection.

Photo 1 of 1: FA_2014_RD1001_37_38_20141020_00030.jpg



Erosion caused by run off from the roadway. Spring 2013

LM Start	7.25	М	Issue No.		19		
LM End	7.35	Issue Type +	Ma	Location *	WS		
Category	ental	GPS La	titud	le/Longitude			
Calegory				Start		End	
Item	USACE E	′	38.9827	37 °	38.982572 °		
item				-121.5011	44 °	-121.502797 °	
DWR ID	DWR ID DWR_RD1001_03_f _ 2014_19						
Action/Comments							

Inspector Comments: 2008 - Sandy/silty banks with rotational slab failures creating near vertical bank with pop-outs due to tree failures. Narrow berm. 2013: No observed changes. [2013 Site ID: BER_5-7_L]



USACE 2013 Photo #1

LM Start	9.68	Rating **	С	Issue No.		49	
LM End	9.68	Issue Type +	Ma	Location * WS		WS	
Category	Earthen Levee				ituc	le/Longitude	
Category		Start		End			
Item	Encroach	ments		38.96844	в°	38.968448	0
пеш		-121.53658	o °	-121.536580	0		
DWR ID	DWR_RD1001_03_f _ 2013_49						
	A ation /Commonsta						

Inspector Comments: Fallen tree on waterward slope.

Tree or limb

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W: Acceptable but Monitor & Maintain	En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	10.22	Rating **	С	Issue No. 24		24		
LM End	10.22	Issue Type +	Ма	Location *		WS		
Category	evee	GPS Latitude/Longitude						
Calegory				Start		End		
Item	Trim / Thi	n Trees		38.96739	96 °	38.967396 °		
пеш				-121.54361	5 °	-121.543615 °		
DWR ID DWR_RD1001_03_s _ 2013_24								
	Action/Comments							

Trim and thin trees to allow visibility of the ground and room to flood fight.

No Photos

LM Start	10.44	Rating **	М	Issue No.	17			
LM End	10.46	Issue Type +	Ма	Location *	WS			
Category				GPS Latitude/Longitude				
Category				Start		End		
USACE Erosion Survey				38.964583 °		38.964010	٥	
item				-121.54496	67 °	-121.545228	0	
DWR ID DWR_RD1001_03_f _ 2014_17								
Action/Comments								

Inspector Comments: 2011 - Large section of bank has slumped off. RD has flagged and appears to be watching. 2012 - Slopes slightly steeper. 2013: Minor new erosion. [2013 Site ID: BER_2-5_L]



USACE 2013 Photo #1

LM Start	11.15	Rating **	М	Issue No.	10		
LM End	11.21	Issue Type +	Ma	Location *	WS		
Category	ental	GPS Latitude/Longitude					
Category				Start		End	
Item	USACE E	rosion Survey	′	38.95507	'0 °	38.954227	0
пеш			-121.54952	8°	-121.550592	0	
DWR ID DWR_RD1001_03_f _ 2014_10							
	Action/Comments						

Inspector Comments: 2011 - Large slumped sections of bank. 2012 - Slopes slightly steeper. 2013: No observed changes. [2013 Site ID: BER_1-9_L]



USACE 2013 Photo #1

*Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy

M: Minimally Acceptable C: C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain

* Issue Type

Ma: Maintenance Deficiancy

Ob: Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	11.29	Rating **	М	Issue No. 22		22	
LM End	11.32	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
Calegory		Start		End			
Item	Vegetation			38.95336	67 °	38.953025	0
item				-121.55142	28 °	-121.551808	0
DWR ID DWR_RD1001_03_s _ 2012_22							
		A .:	_				

Action/Comments

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 3 - L/S slope -Elderberries

LM Start	11.65	Rating **	A/W	Issue No.	25			
LM End	11.86	Issue Type +	Ma	Location *	WS			
Category	evee	GPS Latitude/Longitude						
Calegory			Start		End			
Item	Vegetatio	n		38.9513	02 °	38.950960 °		
пеш	-121.556872 ° -121.560717							
DWR ID DWR_RD1001_03_s _ 2013_25								
	Action/Comments							

Environmental Requirements.

Photo 1 of 1 : FA_2014_RD1001_37_25_20141020_00015.jpg



Revegetation site in progress. Spring 2013

Photo 1 of 1: FA_2014_RD1001_37_1_20141020_00001.jpg

LM Start	12.13	Rating **	М	Issue No.		1		
LM End	12.22	Issue Type +	Ma	Location *		WS		
Category Supplemental				GPS Latitude/Longitude				
Category				Start		End		
Item	USACE E	rosion Survey	′	38.94759	1 °	38.946477	0	
пеш	em				°	-121.564094	0	
DWR ID	DWR_RD1	001_03_f _ 201	4_1					

Action/Comments

Inspector Comments: 2006 - Multiple rotational failures in the berm. Erosion is into the levee toe and lower slope. Tension cracks extensive at top of bank. Cohesive toe creates a bench on which failures occur. 2007 - Still steep bank with some berm with pistol-butted reeds. 2012 - Site extended upstream due to additional slumping. Slopes slightly steeper. 2013: No observed changes. [2013 Site ID: BER_0-8_L]



USACE 2013 Photo #1

*Location
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating
A: Acceptable N: Not Inspected/Rated M: Ma: Maintenance Deficiancy
C: Corrected Ob: Design & System Obsolescence
CR: Crown

** Rating
A: Acceptable N: Not Inspected/Rated Ob: Design & System Obsolescence
CR: Crown

* LSue Type
Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Bear River	Left	12.58	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	12.24	Rating **	М	Issue No.	27			
LM End	12.24	Issue Type +	Ma	Location *		LS		
Category	evee		GPS La	atitud	le/Longitude			
Calegory			Start		End			
Item	Vegetatio	n		38.9462	48 °	38.946248 °		
item				-121.5642	20°	-121.564220 °		
DWR ID DWR_RD1001_03_s _ 2012_27								
		Action/	Comme	nts				
Elderberrie	es are bloc	king visibility	and flood	d fight capa	bility	' .		



RD 1001 Unit 3 - L/S slope -Elderberries @ toe.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.27	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	1.75	Rating **	М	Issue No.		16	
LM End	1.75	Issue Type +	Ma	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory	,			Start		End	
Item	Encroachments			38.916965 °		38.916965 °	
item				-121.5701	47 °	-121.570147 °	
DWR ID	DWR_RD1	001_04_f _ 201	4_16				
Action/Comments							
Tree or limb							





This photo was taken from the levee crown facing west looking down the landward slope at a tree that needs to be removed. Fall 2014.

LM Start	3.14	Rating **	М	Issue No.		41
LM End	3.14	Issue Type +	Ma	Location *	WS	
Category	Earthen L	GPS Latitude/Longitude				
Category			Start		End	
Item	Encroach	ncroachments			41 °	38.900441 °
пеш				-121.5830	93 °	-121.583093 °
DWR ID	DWR_RD1	001_04_f _ 201	3_41			
Action/Comments						
Tree or lim	ıb.					

l ree or limb

No Photos

LM Start	5.05	Rating **	A/W	Issue No.		27
LM End	5.05	Issue Type +	Ma	Location *	WS	
Category	Category Earthen Levee			GPS Latitude/Longitude		
Category				Start End		
Item	Vegetatio	n		38.8848	13 °	38.884813 °
пеш				-121.6114	93 °	-121.611493 °
DWR ID DWR_RD1001_04_s _ 2013_27						
	Action/Comments					

Elderberries are blocking visibility and flood fight capability.

Photo 1 of 1: FA_2014_RD1001_38_27_20141020_00022.jpg

Elderberry Spring 2013

Location + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence N/A: Not Applicable LS : Land Side A : Acceptable M : Minimally Acceptable N : Not Inspected/Rated WS : Water Side C : Corrected U : Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.27	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	5.78	Rating **	М	Issue No.		8	
LM End	6.01	Issue Type +	Ма	Location *	WS		
Category	ental		GPS Latitude/Longitude				
Calegory				Start		End	
Item	USACE Erosion Survey			38.87411	ı3°	38.872373 °	
item				-121.61538	30 °	-121.616504 °	
DWR ID DWR_RD1001_04_f _ 2014_8							
		Action/	Comme	nts			

Inspector Comments: 2011 - Erosion pockets from tree popouts. Sections of the lower bank have slumped off. 2013: Scallops from tree popouts no longer visible on site. Minor new erosion at the middle of the bank. [2013 Site ID: FHR_6-6_L]



USACE 2013 Photo #1

LM Start	6.47	Rating **	М	Issue No.		7	
LM End	6.57	Issue Type +	Ма	Location *	WS		
Category				GPS Latitude/Longitude			
Calegory	alegory —					End	
Item	USACE E	rosion Survey	38.86587	75 °	38.864706 °		
пеш				-121.61998	33 °	-121.620813 °	
DWR ID DWR_RD1001_04_f _ 2014_7							
		Action/	Comme	nts			

Inspector Comments: 2011 - Tall slumping sections. Scour around trees has exposed most of the roots. 2013: No observed changes. [2013 Site ID: FHR_6-0_L]



USACE 2013 Photo #1

LM Start	6.63	Rating **	М	Issue No.		6
LM End	6.88	Issue Type +	Ma	Location *	WS	
Category	Suppleme	ental		GPS Latitude/Longitude		
Calegory			Start		End	
Item	USACE Erosion Survey			38.86394	6°	38.861558 °
item				-121.62138	8 °	-121.623316 °
DWR ID DWR_RD1001_04_f _ 2014_6						
	Action/Comments					

Inspector Comments: 2011 - Large slumped sections on the lower bank. 2012 - New cracks observed. 2013: No observed changes. [2013 Site ID: FHR_5-8_L]



USACE 2013 Photo #1

* Location

LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown

** Rating

A : Acceptable N : Not Inspected/Rated M : Maintenance Deficiancy

C : Corrected Ob : Design & System Obsolescence

U : Unacceptable A/W : Acceptable but Monitor & Maintain En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.27	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	6.64	Rating **	М	Issue No.		18	
LM End	6.64	Issue Type +	Ма	Location *	LS		
Catagony	Earthen Levee			GPS Latitude/Longitude			
Calegory	gory			Start		End	
Item	Vegetatio	ation		38.86370	o°	38.863700	
пеш			-121.62119	3°	-121.621198		
DWR ID DWR_RD1001_04_s _ 2012_18							
		Action/	Comme	nts			

Elderberries are blocking visibility and flood fight capability.

No Photos

LM Start	6.86	Rating **	A/W	Issue No.		28	
LM End	6.86	Issue Type +	Ма	Location *		WS	
Category	Earthen L	en Levee		GPS Latitude/Longitude			
Calegory				Start		End	
Item	Vegetatio	n			71 °	38.861071	0
item				-121.6233	32 °	-121.623332	0
DWR ID DWR_RD1001_04_s _ 2013_28							
		Action/	Commo	ntc			

Environmental Requirements.



Revegetation site. Spring 2013

Photo 1 of 1: FA_2014_RD1001_38_5_20141020_00005.jpg

LM Start	7.54	Rating **	М	Issue No.		5	
LM End	7.86	Issue Type +	Ma	Location *		WS	
Category	Suppleme	ental		GPS La	titud	e/Longitude	
Calegory				Start		End	
Item	USACE E	rosion Survey	/	38.8523	94 °	38.848004	0
пеш				-121.6292	31 °	-121.630873	0
DWR ID	DWR_RD1	001_04_f _ 201	4_5				

Action/Comments

Inspector Comments: 2000 - Steep bank off berm with some slumps and fallen trees, continued erosion. 2002 - Site lengthened upstream and downstream due to vertical bank along most of the reach. 2010 -Site extended upstream. 2011 - Minimal new erosion. 2012 - Site extended on the upstream end, new tree pop-out, and bank erosion continues to worsen. 2013: Minor new erosion at the toe and top of bank. [2013 Site ID: FHR_5-0_L]





USACE 2013 Photo #1

Location + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence N/A: Not Applicable LS : Land Side : Acceptable N : Not Inspected/Rated WS : Water Side Minimally Acceptable C : Corrected U : Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.27	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	8.64	Rating **	М	Issue No.		4
LM End	8.95	Issue Type +	Ма	Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	USACE E	rosion Survey	,	38.83696	66°	38.831498
пеш				-121.63412	28 °	-121.636371
DWR ID	WR ID DWR_RD1001_04_f _ 2014_4					

Action/Comments

Inspector Comments: 2006 - Sandy, silty bank with intermittent pockets of erosion. Rotational failure and tree pop outs are most of the problem. Some upper slope fluvial erosion. 2010 - Site extended upstream. The lower Feather may benefit from a regional repair. 2011 - Site combined with 3.6. Minimal new erosion. 2013: New erosion observed at bank toe. Trees on site now have exposed roots. [2013 Site ID: FHR_3-8_L]



USACE 2013 Photo #1

LM Start	8.72	Rating **	М	Issue No.		12	
LM End	8.72	Issue Type +	Ma	Location *		LS	
Earthen Levee			GPS Latitude/Longitude				
Category			Start		End		
Item	Vegetatio	n		38.8357	66 °	38.835766	0
пеш				-121.6339	66 °	-121.633966	0
DWR ID DWR_RD1001_04_s _ 2012_12							
		A -4: /	O	-1-			

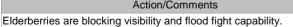
Action/Comments

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 4 - W/S slope - Elderberries

LM Start	11.15	Rating **	М	Issue No.	22			
LM End	11.15	Issue Type +	Ма	Location *	LS			
Category Earthen Levee			GPS Latitude/Longitude					
Category	Category					End		
Item	Vegetatio	n		38.80250	8 °	38.802508	0	
пеш					2 °	-121.632862	0	
DWR ID DWR_RD1001_04_s _ 2012_22								
	A - 1' 1'O 1 -							





RD 1001 Unit 4 - L/S slope - Elderberries

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.27	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	11.19	Rating **	М	Issue No.		2
LM End	11.44	Issue Type +	Ма	Location *		WS
Category				GPS La	titud	le/Longitude
Calegory	TY .			Start		End
Item	USACE E	USACE Erosion Survey			20 °	38.798165 °
пеш				-121.63305	50 °	-121.631939 °
DWR ID	DWR_RD1	001_04_f _ 201	4_2			

Action/Comments

Inspector Comments: 2000 - Site is relatively stable except for some toe erosion at the upstream end, recommend monitoring the upstream end. 2004 - Some new block failures (10ft deep) at the toe of the upstream end. 2007 - Some minor new slumping at the waterline. 2013: Minor new erosion along the toe of the bank. [2013 Site ID: FHR_1-0_L]



USACE 2013 Photo #1

LM Start	11.32	Rating **	М	Issue No.		23
LM End	11.32	Issue Type +	Ma	Location *		LS
Catagory Earthen Levee			GPS Latitude/Longitude			
Category				Start		End
Item	Vegetatio	n		38.8001	12 °	38.800112 °
пеш				-121.6322	42 °	-121.632242 °
DWR ID DWR_RD1001_04_s _ 2012_23					·	
		Action/	Comme	nts		

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 4 - L/S slope - Elderberries

LM Start	11.68	Rating **	М	Issue No.		1	
LM End	11.85	Issue Type +	Ma	Location *		WS	
Supplemental			GPS Lat	itud	e/Longitude		
Category	Category			Start		End	
Item	USACE E	rosion Survey	′	38.79545	5 °	38.793394	0
пеш				-121.62990	3°	-121.628156	0
DWR ID	DWR_RD1	001_04_f _ 201	4_1				

Action/Comments

Inspector Comments: 1997- Deposits over top of cobble on the upper slope. 2000 - Old cobble site in poor shape; some toe retreat, but little change; steep bank. 2010 - Site extended upstream due to new toe erosion. 2012 - Minor new erosion at toe, new slumping, animals holes and cracks observed. 2013: No observed changes. [2013 Site ID: FHR_0-6_L]



USACE 2013 Photo #1

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.27	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	12.40	Rating **	М	Issue No.	24	
LM End	12.49	Issue Type +	Ма	Location *	LS	
Category Earthen Levee			GPS Latitude/Longitude			
Calegory						End
Item	Vegetatio	n		38.7873	55 °	38.786507 °
item				-121.62116	65 °	-121.619837 °
DWR ID	VR ID DWR_RD1001_04_s _ 2012_24					
Action/Comments						

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 4 - L/S slope - Elderberries

LM Start	12.74	Rating **	М	Issue No.	26		
LM End	13.22	Issue Type +	Ma	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory	alegory				Start		
Item	Vegetatio	n		38.7845	13 °	38.781862	
item				-121.6160	45 °	-121.607855	
DWR ID DWR_RD1001_04_s _ 2012_26							
Action/Comments							

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 4 - W/S slope - Elderberries

LM Start	12.76	Rating **	М	Issue No.		11	
LM End	13.21	Issue Type +	Ма	Location *		WS	
Category Earthen Levee			GPS Latitude/Longitude				
Calegory	Category					End	
Item	Vegetatio	n		38.78457	9 °	38.782150 °	
пеш				-121.61568	9 °	-121.607918 °	
DWR ID DWR_RD1001_04_f _ 2013_11							
	Action/Comments						

Elderberries are blocking visibility and flood fight capability.



RD 1001 Unit 4 - W/S slope - Elderberries

Location Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence N/A: Not Applicable LS : Land Side : Acceptable N : Not Inspected/Rated WS : Water Side : Minimally Acceptable C : Corrected U : Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Feather River	Left	13.27	10/22/2014 10/22/2014	Matthew Hoffman

LM Start	12.77	Rating **	М	Issue No.	Issue No. 31			
LM End	13.27	Issue Type +	Ма	Location *		LS		
Catagony	Category Earthen Levee				GPS Latitude/Longitude			
Calegory						End		
Item	Vegetatio	n		38.7817	05 °	38.784536 °		
item				-121.6069	08 °	-121.615401 °		
DWR ID	DWR_RD1001_04_f _ 2014_31							
	Action/Comments							

Control annual grass and weeds on the levee slopes and easements.



This photo was taken from the levee crown facing north looking down the landward slope at vegetation that needs to be removed. Fall 2014.

LM Start	12.77	Rating **	М	Issue No.	32		
LM End	13.27	Issue Type +	Ма	Location *	WS		
Category Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Vegetatio	n		38.78170	06 °	38.784536°	
пеш				-121.6069	08 °	-121.615400 °	
DWR ID	ID DWR_RD1001_04_f _ 2014_32						
	Action/Comments						

Control annual grass and weeds on the levee slopes and easements.



This photo was taken from the levee crown facing south looking down the waterward slope at vegetation that needs to be removed. Fall 2014.

LM Start	12.91	Rating **	М	Issue No.	ssue No.	
LM End	12.91	Issue Type +	Ma	Location *	WS	
Catagory	Earthen Levee			GPS Latitude/Longitude		
Calegory						End
Item	Trim / Thi	n Trees		38.78393	o °	38.783930 °
пеш				-121.61295	2°	-121.612952 °
DWR ID	DWR_RD1	001_04_s _ 201	2_151			
		Action/	Comme	nts		

Trim trees to at least five feet above ground level.



Trees need to be trimmed up at least 5 feet. Spring 2013

Location ** Rating ** Rating ** Supermore The Company of the Compa

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 05 Natomas Cross Canal	Right	5.39	10/21/2014 10/21/2014	Matthew Hoffman

LM Start	2.33	Rating **	М	Issue No.		1	
LM End	2.33	Issue Type +	Ма	Location *	WS		
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	USACE E	rosion Survey	′	38.80387	7°	38.804206	0
пеш				-121.57505	3°	-121.574529	0
DWR ID	DWR_RD1	001_05_f _ 201	4_1				

Action/Comments

Inspector Comments: 2006 - Noted old saturation slumping of upper levee slope that is into the levee core (near high water line). 2011 -Erosion is into the top of the levee. This site is actually located at LM 2.5. 2013: Site is part of the extended inventory, last inspected 2011. [2013 Site ID: NCC_3-0_R]

No Photos

LM Start	4.27	Rating **	Α	Issue No.		16	
LM End	4.27	Issue Type +	Ма	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Calegory	ategory			Start		End	
Item	Vegetatio	n		38.8209	02 °	38.820902 °	
item				-121.5468	68 °	-121.546868 °	
DWR ID DWR_RD1001_05_f _ 2014_16							
		A ation /	Camma	240			

Action/Comments Control annual grass and weeds on the levee slopes and easements.

Photo 1 of 1: FA_2014_RD1001_39_16_20141103_00018.jpg



This photo was taken from the levee crown facing east looking down the landward slope at acceptable vegetation maintenance. Fall 2014.

N : Not Inspected/Rated C : Corrected

+ Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 06 East Side Canal	Right	4.74	10/21/2014 10/21/2014	Matthew Hoffman

LM Start	1.39	Rating **	М	Issue No.	9		
LM End	1.39	Issue Type +	Ма	Location *	CR		
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory						End	
Item	Trim / Thi	n Trees		38.85030	00°	38.850300 °	
пеш				-121.52438	38 °	-121.524388 °	
DWR ID	DWR_RD1	3_9					
	Action/Comments						

Trim trees over roadway to at least 12 feet above ground level.

No Photos

LM Start	2.06	Rating **	М	Issue No.	8	
LM End	2.06	Issue Type +	Ма	Location *	CR	
Category	Catogory Earthen Levee			GPS Latitude/Longitude		
Calegory	alegory			Start		End
Item	Slope Sta	bility		38.86000)2 °	38.860002 °
item				-121.52487	73 °	-121.524873 °
DWR ID	DWR_RD1	001_06_s _ 201	2_8			
		Action/	Comme	nts		

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Subsidence due to traffic across levee crown.



RD 1001 Unit 6 - Levee Crown - Subsidence due to vehicle traffic.

LM Start	2.11	Rating **	Α	Issue No.	ssue No. 1		
LM End	2.11	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
Calegory			Start		End		
Item	Vegetatio	/egetation			18 °	38.860718 °	
пеш				-121.5248	92 °	-121.524892 °	
DWR ID	D DWR_RD1001_06_f _ 2014_15						
	Action/Comments						

Control annual grass and weeds on the levee slopes and easements.



This photo was taken from the levee crown facing north looking down the landward slope at acceptable vegetation maintenance. Fall 2014.

* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy

M: Minimally Acceptable C: C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain

** Rating

A: Acceptable M: N: Not Inspected/Rated Ma: Maintenance Deficiancy Ob: Design & System Obsolescence

En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

Reclamation District No. 1001 Nicolaus

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 06 East Side Canal	Right	4.74	10/21/2014 10/21/2014	Matthew Hoffman

LM Start	4.05	Rating **	М	Issue No.		7	
LM End	4.05	Issue Type +	Ма	Location *		CR	
Category	Earthen Levee			GPS Latitude/Longitude			
				Start		End	
Item	Slope Stability			38.88882	21 °	38.888821 °	
				-121.52473	33 °	-121.524733 °	
DWR ID	DWR_RD1001_06_s _ 2012_7						

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Levee crown subsided due to vehicle traffic across crown.



RD 1001 Unit 6 - Levee Crown - Subsidence due to vehicle traffic.

LM Start	4.35	Rating **	М	Issue No.	19		
LM End	4.35	Issue Type +	Ma	Location *	CR		
Category	Earthen Levee			GPS Latitude/Longitude			
				Start		End	
Item	Slope Stability			38.8931	14 °	38.893114°	
				-121.5247	15 °	-121.524715 °	
DWR ID	DWR_RD1001_06_f _ 2013_19						
Action/Comments							

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Levee crown subsided due to vehicle traffic across crown.

Photo 1 of 1 : FA_2014_RD1001_40_19_20141020_00006.jpg



This photo was taken from the levee crown facing north looking at subsidence due to vehicle traffic across crown. Fall 2013.

A : Acceptable

M : Minimally Acceptable

U : Unacceptable

N : Not Inspected/Rated C : Corrected

A/W: Acceptable but Monitor & Maintain

+ Issue Type

Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement